

Appl. No.: 10/632,359
Reply to Office Action of: 02/24/2005

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A motion encoder for determining rotational movement of a rotatable member comprising ~~An~~ an element providing a plurality of areas having respectively different electromagnetic radiation transmission characteristics for the onward transmission of electromagnetic radiation, the areas being arranged to provide a directionally unique sequence of transmission characteristics along a path traced on rotation of the rotatable element member.
2. (Currently amended) A motion encoder according to claim 1 further comprising a source of electromagnetic radiation for directing the radiation towards the element and a detector for sensing the onward transmission of the electromagnetic radiation from the element.
3. (Currently amended) A motion encoder according to claim ~~1~~ 2 wherein the detector is located for rotation with the rotatable member.
4. (Currently amended) A motion encoder according to claim ~~1~~ 2 wherein the source is located for rotation with the rotatable member.
5. (Original) A motion encoder according to claim 1 wherein the characteristics are reflection characteristics.

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6. (Currently amended) A motion encoder according to claim 1 wherein ~~there are the areas having comprises~~ three different ones of the characteristics that are repeated in ~~the a same order on the a surface along the path of the trace of the element.~~

7. (Currently amended) A motion encoder according to claim 1 wherein the rotatable member ~~allows movement is movable~~ in an axis perpendicular to ~~the a plane of rotation~~ of the rotatable member.

8. (New) A motion encoder according to claim 1 wherein the areas comprise surfaces on the element.

9. (New) A motion encoder according to claim 8 wherein the surfaces comprise different reflective surfaces.

10. (New) A motion encoder according to claim 8 wherein the surfaces comprise different polarization surfaces.

11. (New) A motion encoder according to claim 8 wherein the surfaces comprise partially transparent surfaces.

12. (New) A motion encoder according to claim 8 wherein the surfaces comprise different heights on the element.

13. (New) A motion encoder according to claim 1 wherein the areas comprise a substantially same size.

14. (New) A mobile communications device comprising a display and a user input, wherein the user input comprises a source of electromagnetic radiation, a detector for sensing

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electromagnetic radiation, a rotatable member, and a motion encoder as in claim 1.

15. (New) A motion encoder for determining rotational movement of a rotatable member, the motion encoder comprising:

a source of electromagnetic radiation;

a detector for sensing electromagnetic radiation; and

an element located in a path between the source and the detector, wherein the element comprises a plurality of areas having respectively different electromagnetic radiation reflection characteristics for reflecting electromagnetic radiation from the source to the detector, wherein the areas are arranged to provide a directionally unique sequence of transmission characteristics along the path traced on rotation of the rotatable member.

16. (New) A mobile communications device comprising a display and a user input, wherein the user input comprises a rotatable member and a motion encoder as in claim 15.

17. (New) A motion encoder comprising:

a source of electromagnetic radiation;

a detector for sensing electromagnetic radiation; and

a rotatable member located in a path between the source and the detector, wherein the rotatable member comprises a plurality of electromagnetic radiation affecting surfaces having respectively different electromagnetic

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radiation affecting characteristics for affecting transmission of electromagnetic radiation from the source to the detector, wherein the surfaces are arranged to provide a directionally unique sequence of transmission characteristics along the path when the rotatable member is rotated.